

U.S. Patent Application Serial No. 10/697,944
Preliminary Amendment filed May 4, 2008

REMARKS

As indicated above, this is a Preliminary Amendment for the Request for Continued Examination (RCE) filed herewith for the above-captioned patent application.

Claims 1 - 5 and 21 - 24 are currently pending in this patent application, claims 1, 21, 22 and 24 being independent claims. Claims 6 - 20 have been canceled without prejudice or disclaimer.

Claims 21 - 23 have been amended in order correct certain informalities; and claim 24 has been added in order to more particularly point out, and distinctly claim the subject matter to which the applicant regards as his invention.

As to the merits of this case, in the final Office Action dated December 4, 2007, first, claims 21 - 23 are rejected under 35 U.S.C. §102(b) as being anticipated by Cuchiario (U.S. Patent No. 6,225, 656). The applicant respectfully requests reconsideration of this anticipation rejection.

Claims 21 and 22 require, in part, that the claimed semiconductor device includes a first capacitor protection insulating film and a second capacitor protection insulating film.

It appears to be the Examiner's position that Cuchiario's elements 137 and 138 respectively correspond to the first and second capacitor protection insulating films required in claim 21. However, Cuchiario discloses elements 137 and 138 as lower and center region of hydrogen barrier layer 135 (see, col. 7, lines 36 - 50 in Cuchiario). Thus, the elements 137 and 138 are not separate layers. Rather, they are some portions of the layer 135. To the contrary, the applicant's claimed first and second capacitor protection insulating films set forth in claims 21 and 22 are required to be films.

Accordingly, since not all of the claimed elements, as recited in independent claim 21, are found in exactly the same situation and united in the same way to perform the identical function in Cuchiario's device, there can be no anticipation of the claimed invention based on the teachings of Cuchiario.

Moreover, claim 23 depends on independent claim 22, and further limit the scope of claim 22. Thus, at least for the reasons set forth above with respect to claim 22, claim 23 should now be similarly allowable.

Accordingly, the withdrawal of the outstanding anticipation rejection under 35 U.S.C. §102(b) based on Cuchiario (U.S. Patent No. 6,225, 656) is in order, and is therefore respectfully solicited.

Second, in the outstanding Action, claims 1 - 5 stand rejected under 35 U.S.C. §103(a) based on Cuchiario in view of Furumura (U.S. Patent No. 5,506,443). The applicant respectfully requests reconsideration of this obviousness rejection.

The Examiner asserts in the Action that it would have been obvious to a person having ordinary skill in the art to raise the carbon levels of the SiN second capacitor protection insulating film 139 at the SiN/SiO₂ interface of Cuchiario's semiconductor device, such as taught by Furumura (see, page 5 of the Action).

The applicant submits that, with due respect to the Examiner, the Examiner misinterprets the teachings of Cuchiario. As noted above, Cuchiario's element 139 is a portion of the hydrogen barrier layer 135. The layer 135 is formed in step 230 in Fig. 4 of Cuchiario, as disclosed in col. 13, line 26-29 therein. In this step 230, titanium nitride is deposited as the hydrogen barrier layer (see, col. 12, lines 15 - 18 in Cuchiario).

There is nothing in the teachings of Cuchiario that use SiN layer as the hydrogen barrier layer. As submitted above, titanium nitride is deposited as the hydrogen barrier layer in Cuchiario. Such teaching does not motivate one skilled in the art to combine the Cuchiario's device and Furumura's device that is directed to SiN layer. Reconsideration of the rejection is thus respectfully requested.

Moreover, claims 2 - 4 depend on independent claim 1, and further limit the scope of claim 1. Thus, at least for the reasons set forth above with respect to claim 1, claims 2 - 4 should now be similarly allowable.

Accordingly, the withdrawal of the outstanding obviousness rejection under 35 U.S.C. §103(a) based on Cuchiario in view of Furumura (U.S. Patent No. 5,506,443) is in order, and is therefore respectfully solicited.

In view of the aforementioned amendments and accompanying remarks, claims, as amended, are in condition for allowance, which action, at an early date, is requested.

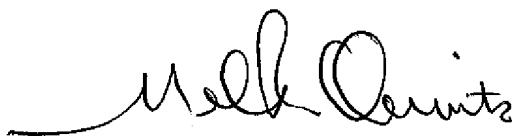
If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

U.S. Patent Application Serial No. 10/697,944
Preliminary Amendment filed May 4, 2008

In the event that this paper is not timely filed, the applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper to Deposit Account No. 01-2340.

Respectfully submitted,

KRATZ, QUINTOS & HANSON, LLP



Mel R. Quintos
Attorney for Applicant
Reg. No. 31,898

MRQ/lrj/ipc

Atty. Docket No. **021557A**
Suite 400
1420 K Street, N.W.
Washington, D.C. 20005
(202) 659-2930



23850

PATENT & TRADEMARK OFFICE

Enclosures: Request for Continued Examination
Petition for Extension of Time